# INSTRUCTION MANUAL



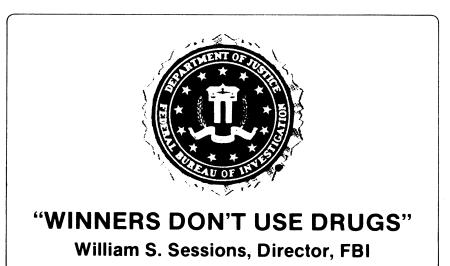


CAPCOM U.S.A.

## **WARNING**

# THIS GAME MUST BE GROUNDED. FAILURE TO DO SO MAY RESULT IN DESTRUCTION TO ELECTRONIC COMPONENTS.

**WARNING:** This equipment generates, uses and can radiate radio frequency energy and if not used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a CLASS A computing device pursuant to SUBPART J and PART 15 of FCC RULES, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.



\*IN COOPERATION WITH THE AAMA AND FBI ANTI-DRUG CAMPAIGN\*

# CAPCOM, USA INC.

INVITES YOU TO USE

OUR SERVICE NUMBER FOR
SERVICE INFORMATION CONCERNING THIS GAME, OR ANY
OTHER CAPCOM GAME YOU NOW HAVE ON LOCATION.
PLEASE HAVE GAME SERIAL NUMBERS AND CABINET NUMBERS READY.

CALL US FOR PROMPT, COURTEOUS ANSWERS TO YOUR PROBLEMS.

**Direct Number** 

(408) 727-0400

# **Installing Your New**



**New Game Package** 

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# **Dip Switch Tables**

## **Optimize Your Profits**

## Thorough Research shows that two and a half minute games both satisfy players and also keep the quarters flowing.

If games aren't running about two and a half minutes long, then collections probably aren't at their peak. You'll want to tailor your game to your location. The trick is to adjust a few DIP switches. (See the chart in this book.) It's easy!

## DIP SW (A)

| ITEM     | DESCRIPTION      | 1   | 2   | 3   | 4 | 5 | 6 | 7   | 8 |
|----------|------------------|-----|-----|-----|---|---|---|-----|---|
|          | 1 COIN 1 CREDIT  | OFF | OFF | OFF |   |   |   |     |   |
|          | 1 COIN 2 CREDITS | ON  | OFF | OFF |   |   |   |     |   |
|          | 1 COIN 3 CREDITS | OFF | ON  | OFF |   |   |   |     |   |
| COIN 1   | 1 COIN 4 CREDITS | ON  | ON  | OFF |   |   |   |     |   |
|          | 1 COIN 6 CREDITS | OFF | OFF | ON  |   |   |   |     |   |
|          | 2 COINS 1 CREDIT | ON  | OFF | ON  |   |   |   |     |   |
|          | 3 COINS 1 CREDIT | OFF | ON  | ON  |   |   |   |     |   |
|          | 4 COINS 1 CREDIT | ON  | ON  | ON  |   |   |   |     |   |
| CONTINUE | NORMAL           |     |     |     | , |   |   | OFF |   |
| COIN     | CONTINUE         |     |     |     |   |   |   | 0N  |   |

<sup>\*</sup>IF CONTINUE COIN MODE IS ON. GAME STARTS WITH 2COINS AND CONTINUES WITH 1 COIN.

## DIP SW (B)

| ITEM       | DESCRIPTION | 1   | 2   | 3   | 4 | 5   | 6 | 7   | 8 |
|------------|-------------|-----|-----|-----|---|-----|---|-----|---|
|            | EASY        | OFF | OFF | OFF |   |     |   |     |   |
|            | <b>A</b>    | ON  | OFF | OFF |   |     |   |     |   |
|            |             | OFF | ON  | OFF |   |     |   |     |   |
|            | NORMAL      | ON  | ON  | OFF |   |     |   |     |   |
| DIFFICULTY | ı           | OFF | OFF | ON  |   |     |   | l.· |   |
| LEVEL      |             | ON  | OFF | ON  |   |     |   |     |   |
|            | DIFFICULT   | OFF | ON  | ON  |   |     |   |     |   |
|            |             | ON  | ON  | ON  |   |     |   |     |   |
| COIN       | 3 COINS     |     |     |     |   | OFF |   |     |   |
| SELECTOR   | 1 COIN      |     |     |     |   |     |   |     |   |
| J          |             | ļ   |     |     |   | ON  |   |     |   |
|            |             |     |     |     |   |     |   |     | , |
|            |             |     |     |     |   |     |   |     |   |

<sup>3</sup> COIN MODE AND 2 PLAYERS MODE MAY NOT BE USED TOGETHER

## DIP SW (C)

| ITEM                        | DESCRIPTION | 1 | 2 | 3 | 4         | 5         | 6         | 7   | 8   |
|-----------------------------|-------------|---|---|---|-----------|-----------|-----------|-----|-----|
| SCREEN<br>PAUSE             | NO<br>YES   |   |   |   | OFF<br>ON |           |           |     |     |
| SCREEN<br>FLIP              | NO<br>YES   |   |   |   |           | OFF<br>ON |           |     |     |
| DEMON-<br>STRATION<br>SOUND | NO<br>YES   |   |   |   |           |           | OFF<br>ON |     |     |
| CONTINUE                    | NO          |   |   |   |           |           |           | OFF |     |
| 001111102                   | YES         |   |   |   |           |           |           | ON  |     |
| MODE                        | GAME MODE   |   |   |   |           |           |           |     | OFF |
|                             | TEST MODE   |   |   |   |           |           |           |     | ON  |

<sup>\*</sup>HIGHLIGHTED CHARACTER INDICATES FACTORY SETTING. \*RE-START WHEN DIP SW RESET.



# HELPFUL HINTS IN CASE OF DIFFICULTY

## PROBLEM/CAUSE-CURE

## No Raster/No Video

-Check A.C. line cord

-Check line fuse

-Check monitor brightness

-Check power switch and/or interlock switch

-Check all solder connections on line filter and transformer

-Check for proper orientation of the PCB connector

Raster/No Video

-Check all PCB to monitor connections

-Check power supply voltage on PCB

No Video/Game sounds can be heard

-Check monitor brightness

-Check all PCB to monitor connections

Wrong Colors

-Monitor needs degaussing

-Check for proper wiring between PCB and monitor

-Check monitor adjustment and adjust if necessary

Wavy Picture

-Check monitor ground is properly connected to monitor

-Be certain sync inputs are properly connected to monitor

-Check horizontal hold adjustment

Horizontal/Vertical Roll

-Check horizontal and/or vertical hold adjustments

-Check for proper wiring of sync from PCB to monitor

No Sound

-Check for -5 volts on edge connector of PCB

-Check volume control potentiometer adjustment

-Check for +12 volts on edge connector of PCB

-Check wiring from PCB to speaker

-Check speaker for low resistance between the "+" and "-" tabs

**Bad Sound** 

-Check wiring to speaker for bad solder connections

-Check sound with another speaker

No Switch Input

-Check ground connection to switch/es

-Check wiring between PCB and switch/es for proper connection

-Check switch/es with an ohmmeter to verify proper operation

Switch Operates Incorrect Function

-Check wiring between PCB and switches for proper orientation

-Check wiring for shorts between switch inputs

No Coin Meter

-Check wiring to coin meter

-Check that +5 volts is on "+" side of meter

-Verify a +5 volt meter is used

When coin switch is made and meter pulses, the screen blanks out and/or game resets

-Verify that a meter with a diode is used

-If no diode is built in meter, a IN4004 can be used across the meter.

Cathode to "+" side of meter and anode to "-" side of meter

Also see CAUTIONS under section "Before You Get Started"

## **SETTING EXPLANATION**

**PCB CONNECTOR** 

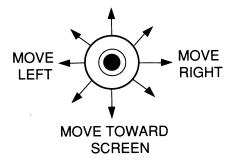
JAMMA STANDARD

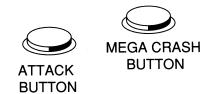
**CRT MONITOR** 

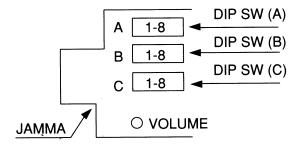
VERTICAL SCREEN

**CONTROL PANEL** 

MOVE AWAY FROM SCREEN





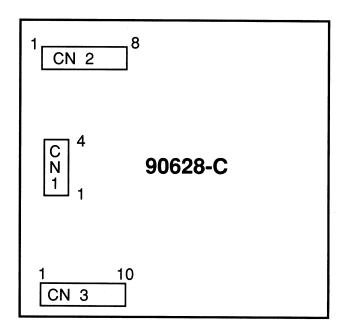


| SOLDER SIDE      |   |    | COMPONENT SIDE    |
|------------------|---|----|-------------------|
| GND              | Α | 1  | GND               |
| GND              | В | 2  | GND               |
| +5V              | С | 3  | +5V               |
| +5V              | D | 4  | +5V               |
| N.C.             | Ε | 5  | N.C               |
| +12V             | F | 6  | +12V              |
|                  | Н | 7  |                   |
| COIN COUNTER 2.  | J | 8  | COIN COUNTER 1    |
| (COIN LOCKOUT 2) | K | 9  | (COIN LOCK OUT 1) |
| SP (-)           | L | 10 | SP ( + )          |
| N.C.             | М | 11 | N.C.              |
| VIDEO GREEN      | N | 12 | VIDEO RED         |
| VIDEO SYNC       | Р | 13 | VIDEO BLUE        |
| SERVICE SW       | R | 14 | VIDEO GND         |
|                  | S | 15 | TEST SW           |
| COIN SW 3        | Т | 16 | COIN SW 1         |
| START SW 3       | U | 17 | START SW 1        |
| 3P UP            | ٧ | 18 | 1P UP             |
| 3P DOWN          | W | 19 | 1P DOWN           |
| 3P LEFT          | Х | 20 | 1P LEFT           |
| 3P RIGHT         | Υ | 21 | 1P RIGHT          |
| 3P PUSH 1        | Z | 22 | 1P PUSH 1         |
| 3P PUSH 2        | а | 23 | 1P PUSH 2         |
| 3P PUSH 3        | b | 24 | 1P PUSH 3         |
| N.C.             | С | 25 | N.C.              |
| N.C.             | d | 26 | N.C.              |
| GND              | е | 27 | GND               |
| GND              | f | 28 | GND               |
|                  | L |    | 1                 |

# **MAIN HARNESS CONNECTIONS**

| Wire Color | Solder Side      |   |    | Parts Side       | Wire Color |
|------------|------------------|---|----|------------------|------------|
| Black      | Ground           | A | 1  | Ground           | Black      |
| Black      | Ground           | В | 2  | Ground           | Black      |
| Red        | +5VDC            | C | 3  | +5VDC            | Red        |
| Red        | +5VDC            | D | 4  | +5VDC            | Red        |
| White      | Not Used         | E | 5  | Not Used         | White      |
| Yellow     | +12VDC           | F | 6  | +12VDC           | Yellow     |
|            | Key              | Н | 7  | Key              |            |
| Brown      | Coin Counter 2   | J | 8  | Coin Counter 1   | Brown      |
| Red        | (Coin Lockout 2) | K | 9  | (Coin Lockout 1) | Red        |
| Black      | Speaker (-)      | L | 10 | Speaker (+)      | White      |
| Blue       | Not Used         | M | 11 | Not Used         | Blue       |
| Green      | Video Green      | N | 12 | Video Red        | Red        |
| Gray       | Video Sync       | Р | 13 | Video Blue       | Blue       |
| Red        | Service SW       | R | 14 | Video Gnd        | Black      |
| Brown      | Not Used         | S | 15 | Test Switch      | Brown      |
| White      | Coin SW 2        | Т | 16 | Coin SW 1        | White      |
| Gray       | 2P Start         | U | 17 | 1P Start         | Gray       |
| Violet     | 2P Up            | V | 18 | 1P Up            | Violet     |
| Blue       | 2P Down          | W | 19 | 1P Down          | Blue       |
| Green      | 2P Left          | Х | 20 | 1P Left          | Green      |
| Yellow     | 2P Right         | Υ | 21 | 1P Right         | Yellow     |
| Orange     | 2P Fire          | Z | 22 | 1P Fire          | Orange     |
| Red        | 2P Sp. Weapon    | а | 23 | 1P Sp. Weapon    | Red        |
| Brown      | Not Used         | b | 24 | Not Used         | Brown      |
| Blue       | Not Used         | С | 25 | Not Used         | Blue       |
| Blue       | Not Used         | d | 26 | Not Used         | Blue       |
| Black      | Ground           | е | 27 | Ground           | Black      |
| Black      | Ground           | f | 28 | Ground           | Black      |

## 2nd-PLAYER SPEC.



## 4 PIN

| GND | 1 | BLACK  |
|-----|---|--------|
| GND | 2 | BLACK  |
| 12V | 3 | YELLOW |
| 12V | 4 | YELLOW |

## **INPUT PIN**

CONNECT WITH JAMMA CONNECTOR GND AND 12V PIN.

## 8 PIN 1 N.C. (COIN LOCK 3) 2 **PURPLE** LAMP 1 3 GRAY LAMP 2 4 WHITE LAMP 3 5 **BROWN** 12V 6 **YELLOW** 12V 7 **YELLOW** 12V 8 **YELLOW**

## **OUTPUT PIN**

FOR USE WITH LIGHTENED START BUTTON.
\* NOT TO BE OUTPUT THE CASE WITHOUT FROM CN1.

12V ELECTRIC POWER FOR LAMPS

## **10 PIN**

| •           | •  | · •    |
|-------------|----|--------|
| GND         | 1  | BLACK  |
| GND         | 2  | BLACK  |
| 2P RIGHT    | 3  | PURPLE |
| 2P LEFT     | 4  | GRAY   |
| 2P DOWN     | 5  | WHITE  |
| 2P UP       | 6  | BROWN  |
| 2P PUSH 1   | 7  | ORANGE |
| 3P PUSH 2   | 8  | GREEN  |
| (COIN SW 2) | 9  | BLUE   |
| START SW 2  | 10 | PURPLE |
|             |    |        |

## THIRD PLAY CONTROLLER INPUT

# **NOTES:**

# **CAPCOM GAME OWNER:**

Please fill out card and register for Free drawing at COIN-OP SHOWS. YOU NEED NOT BE PRESENT TO WIN.

Remember to fill in S/N of PCB (S/N IS REQUIRED FOR DRAWING).

# REGISTER FOR FREE DRAWING

-9.

| FDOM  |   |       |
|-------|---|-------|
| FROM: |   |       |
|       |   |       |
|       |   |       |
|       |   |       |
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|       |   | STAMP |
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|       |   | HERE  |
|       |   | HENE  |
|       |   |       |
|       | , |       |

CAPCOM U.S.A., INC.

3303 Scott Boulevard Santa Clara, CA 95054



3303 Scott Boulevard Santa Clara, CA 95054 (408) 727-0400

| .  |  |
|--|--|
| LAST NAME  | FIRST NAME   |
|  |  |
| ADDRESS  |  |
|  |  |
| CITY STATE   | ZIP CODE AREA CODE/PHONE NO.                           |
|  | THE ROBE THOME NO.                                     |
| SPORTING THE STATE OF THE STATE |  |
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|  |  |
|  | <del></del>  |
| S/N AAMA NO.   |  |
| HOW WOULD YOU RATE THIS GAME: EXCELLENT   VERY GOOD [  | □ FAIR □ POOR □  |
| HOW DID YOU HEAR ABOUT THIS GAME:  |  |
| MAGAZINE   FRIEND   OTHER  | C. DI AN TO DIVIN NEAD FUTURE C                        |
| WHAT TYPE OF ROUTE DO YOU OWN:   | PLAN TO BUY IN NEAR PUTURE                             |
| ARCADE   SMALL ROUTE   LARGE ROUTE   HOW MANY GAME:  | ES DO YOU OWN  |
|  | BOWLING . GHOULS 'N' GHOSTS STRIDER FORGOTTEN WORLDS   |
|  | SQUADRON   FINAL FIGHT   1943   STREET FIGHTER   OTHER |
| COMMENTS:  |  |